

Nervilia peltata (Orchidaceae), a new species from north-eastern Queensland and the Northern Territory

B. Gray and D. L. Jones

Summary

Gray, B. & D.L. Jones (1994). *Nervilia peltata* (Orchidaceae), a new species from north-eastern Queensland and the Northern Territory. *Austrobaileya* 4(2): 195–198. *Nervilia peltata* B. Gray & D. L. Jones is described and illustrated. Keys to the Australian species of *Nervilia* based on vegetative and floral material are provided.

Keywords: Orchidaceae - Queensland, *Nervilia peltata*, *Nervilia* - Australia.

B. Gray, Australian National Herbarium, CSIRO, Division of Plant Industry, PO Box 780, Atherton, Qld 4883, Australia

D.L. Jones, Australian National Botanic Gardens, Box 1777, Canberra, 2601, Australia

Introduction

The genus *Nervilia* Comm. ex Gaudich. in Australia consists of 5 species, all found in tropical regions (Clements 1989, Dockrill 1969, Gray & Jones 1985). A widespread species of this genus having distinctive, grey-green peltate leaves has been known to the authors for many years but floral material to confirm the identity has proved to be elusive. Cultivated plants of it, which have flowered over the last two years, have confirmed the distinctiveness of the species and it is described here as new.

Nervilia peltata B. Gray & D. L. Jones, species nova affinis *N. crocifolmi* (Zoll. & Moritzi) Seidenf. a qua foliis glauces-centibus adpressis ad terram peltatis, inflorescentia 1–3-flora, floribus minori-bus non resupinatis oblique erectis, et labello laciniato multo magis intricate et multo magis profunde differt. **Typus:** Queensland: COOK DISTRICT, cultivated Atherton ex Queensland, 2 km south of Cape York, 10°42'S, 142°32'E, Sm. alt., 11 February 1986, B. Gray 5287 (holotype: QRS). **Fig. 1.**

Tubers irregularly ovoid, 1–2 cm diam., consisting of 4–6 nodes, with nodal roots and spreading stolons. Leaf solitary, more or less

circular, 2–4.5 cm diameter, peltate, ground-hugging, pale grey-green, thin-textured, surface somewhat granular, margins irregular, on flowering plants arising from the base of a scape after anthesis. Inflorescence 6–10 cm tall, fleshy, green, brittle. Sterile bracts 2 or 3, 1–1.6 × 0.6–0.8 cm, lanceolate, closely stem-embracing. Fertile bracts lanceolate, 4–6 × 2–3 mm, spreading. Flowers 1–3, non-resupinate, opening singly, c. 2–2.8 mm across, pale green with a white labellum. Pedicels 0.5–1.8 cm long, slender. Ovary c. 3 × 2 mm, ovoid. Dorsal sepal narrowly obovate, 1.4–1.7 × 2.5–3 mm, obliquely erect, apex subacute. Lateral sepals linear to narrowly obovate, 1.4–1.6 × c. 2.5 mm, divergent, apex subacute. Petals narrowly oblanceolate, 1.4–1.6 × c. 2.5 mm, obliquely erect, divergent, subacute to acute. Labellum oblong to obovate-spathulate when flattened, 2–2.5 cm long, porrect, hardly trilobate, greenish towards the base, the proximal margins erect and column-embracing, narrow in proximal half (4–5 mm across), then suddenly expanded into a deeply and irregularly lacinate section 1–1.2 cm across, these margins involute and overlapping; callus relatively obscure, consisting of a flat plate in the proximal third then small calli arranged in irregular lines towards the labellum apex and distal margins. Column pale green, 7–8 × c. 2.5 mm, fleshy, porrect from the apex of the ovary, dilated towards the apex, prominently winged. Stigma ovate, c. 1.2 mm

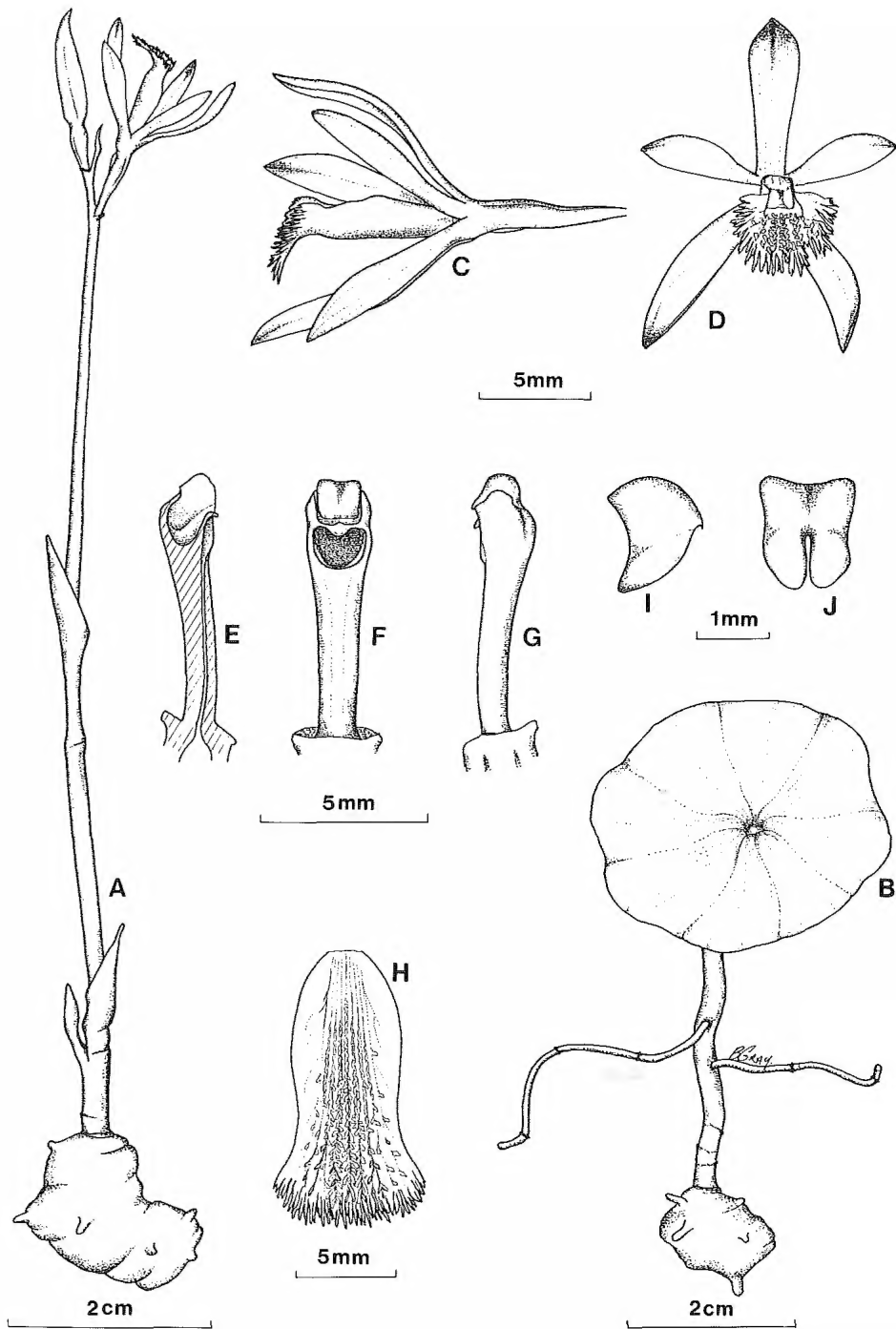


Fig.1. *Nervilia peltata*: A. plant in flower. B. plant in leaf. C. flower from side. D. flower from front. E. section through column. F. column from front. G. column from side. H. labellum flattened. I. anther from side. J. anther from behind. All from Gray 5287.

across, sunken. Anther cap more or less ovate, pale green, inclined forwards. Pollinia c. 1.5 mm long, linear-clavoid, pale yellow, mealy. Capsule 8–12 mm × 4–6 mm, obovoid.

Flowering Period: December to February.

Collections Examined: Queensland. COOK DISTRICT: adjacent to Lockhart River Airport, Mar 1982, *Gray* 2486 (QRS); 2 km south of Cape York, Feb 1986, *Gray* 4272 (QRS); Moa Island, Mar 1989, *Gray* 5000 (QRS); 5 km west of St Pauls, Moa Island, 12 Feb 1989, *Jones* 3605 (CBG); Stoney Ck, south of Cooktown, 1 Apr 1993, *Broers* 444 & *Roberts* (CBG); North Kennedy; cultivated Townsville ex Hinchinbrook Island, Dec 1987, *Lavarack* s.n. (QRS, CBG); Northern Territory: Green Ant Creek, 6 Mar 1970, *Byrnes* 1699 (DNA); Hanguana Jungle, Melville Island, 2 February 1984, *Jones* 1339 (DNA).

Distribution and Habitat: Endemic to Australia, occurring in the Top End of the Northern Territory, and from Torres Strait (Moa Island) south to Hinchinbrook Island in north-eastern Queensland. It forms extensive colonies among grass in open forest and woodland.

Affinities: *Nervilia peltata* is closest to *N. crociformis* but can be readily distinguished by vegetative and floral features. The leaves of

N. peltata can be immediately distinguished because they are peltate, strongly ground-hugging, pale grey-green and have a granular surface. By contrast, those of *N. crociformis* are non-peltate, dark green, smooth and are held horizontally above the ground. *Nervilia peltata* bears 1–3 non-resupinate, obliquely erect flowers to 2.8 cm across, each lasting about a day. The inflorescence of *N. crociformis* is single-flowered with the flower being resupinate, to 3.7 cm across, facing upwards and lasting two or more days. The labellum of *N. peltata* is much more deeply and intricately fringed than that of *N. crociformis*.

Notes: The distinctive leaves of *N. peltata* have been known to the authors for many years but it is only in the last two years that it has been possible to obtain flowers (by maintaining plants in cultivation). The leaves of wild populations are somewhat variable with smaller leaves being nearly round and the petiole almost central, whereas in larger leaves the petiole tends to be off-centre and there is often an indentation on the nearest margin (L. Roberts pers. comm.).

Vegetative Key to Australian *Nervilia*

1. Leaf ground-hugging 2
 Leaf erect, never ground-hugging 4
2. Leaf peltate ***N. peltata*** B. Gray & D.L. Jones
 Leaf non-peltate 3
3. Leaf glabrous, veins immersed ***N. crociformis*** (Zoll. et Moritzzi) Seidenf.
 Leaf hairy above, veins raised ***N. plicata*** (Andrews) Schltr.
4. Leaf less than 5 cm across, dark red or pulplish beneath ***N. uniflora*** (F. Muell.) Schltr.
 Leaf more than 5 cm across, green beneath 5
5. Leaf ovate, plicate, flat throughout ***N. holochila*** (F. Muell.) Schltr.
 Leaf broadly cordate, not plicate, the basal margins infolded ***N. aragoana*** Gaudich.

Floral Key to Australian *Nervilia*

1. Flowers pale green with a white labellum 2
 Flowers pink or mauve with a pink or red labellum 4

2. Labellum mid-lobe entire or slightly crenulate **N. aragoana** Gaudich.
 Labellum mid-lobe fimbriate or laciniate 3
3. Flowers non-resupinate, labellum mid-lobe deeply laciniate
 **N. peltata** B. Gray & D. L. Jones
 Flowers resupinate, labellum mid-lobe fimbriate . **N. crociformis** (Zoll. et Moritzi) Seidenf.
4. Labellum mid-lobe ovate **N. uniflora** (F. Muell.) Schltr.
 Labellum mid-lobe square to oblong 5
5. Labellum with a broad, hairy central ridge **N. holochila** (F. Muell.) Schltr.
 Labellum glabrous, lacking a prominent central ridge **N. plicata** (Andrews) Schltr.

Conservation Status: Widely distributed, common and conserved in national parks.

Etymology: From the Latin *peltatus*, shield-shaped with a central stalk, in reference to the leaf.

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